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ABSTRACT

The papers in this document were prepared by representatives of seven innovative teacher staff development projects in Northern Virginia. They describe networks of inservice and staff development activities which were originally designed and implemented in the schools. The following papers are included: (1) "TESA: Teacher Expectations and Student Achievement" (Shirley McCoy); (2) "The Enhanced Instructional Process" (Joan Bloomer); (3) "Instructional Effectiveness: Making Excellence a Habit" (Joan Tannenbaum); (4) "Staff Development for Gifted/Talented Education" (Diana Hasuly); (5) "Learning Styles and Left/Right Brain Preferences" (June Webb); (6) "Models of Teaching" (Ricki Green and Lynne Pope); and (7) "The Northern Virginia Writing Project" (Don Gallehr). References are included. (JD)

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Innovative Staff Development Practices in Northern Virginia Schools

1986 - 1987

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Division of Continuing Education

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July 1987

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George Mason University

INNOVATIVE STAFF DEVELOPMENT PRACTICES IN NORTHERN VIRGINIA SCHOOLS

1986-1987

GEORGE MASON UNIVERSITY

DIVISION OF
CONTINUING EDUCATION

COLLEGE OF EDUCATION
AND HUMAN SERVICES

Editors

Edward V. Jones
Inservice Education Coordinator

Nancy B. Van Valkenburgh
Project Associate

July 1987

INTRODUCTION

During the spring of 1987, the Inservice Education Coordinator at George Mason University (GMU) invited representatives of seven innovative teacher staff development projects in Northern Virginia public schools to prepare papers on these activities for sharing with a larger audience. After a series of drafts, discussions, and revisions, these papers were presented at GMU in an all day symposium on May 28, 1987.

For the most part, the contents of this volume describe networks of inservice and staff development activities which were originally designed and implemented in the schools. At this stage, however, each of these programs includes a strong credit component on which GMU and the schools have collaborated. In disseminating these papers, we hope to increase knowledge and stimulate interest about these effective staff development initiatives.

TABLE OF CONTENTS

Introduction.....i

Table of Contents.....ii

TESA: Teacher Expectations and Student Achievement.....1
Shirley McCoy
Fairfax County Public Schools

The Enhanced Instructional Process.....15
Joan Bloomer
Prince William County Public Schools

Instructional Effectiveness: Making Excellence a Habit.....25
Dr. Joan Tannenbaum
Falls Church City Public Schools

Staff Development for Gifted/Talented Education.....33
Diana Hasuly
Arlington Public Schools

Learning Styles and Left/Right Brain Preferences.....42
Dr. June Webb
Fairfax County Public Schools

Models of Teaching.....54
Ricki Green and Lynne Pope
Fairfax County Public Schools

The Northern Virginia Writing Project.....68
Dr. Don Gallehr
George Mason University

TEACHER EXPECTATIONS AND STUDENT ACHIEVEMENT

by Shirley McCoy

Teacher Expectations and Student Achievement (TESA) is a staff development program designed to increase teachers' awareness of their responses to different students, especially low achievers, and to promote more supportive and motivating interactions. Shirley McCoy is a minority performance resource teacher with Fairfax County Public Schools. For further information, contact her at 703-938-6401.

The Shaping of Teacher Expectations

If a child lives with encouragement,
he learns to be confident.
If a child lives with praise,
he learns to love.
If a child lives with acceptance,
he learns to like himself.
If a child lives with recognition,
he learns that it is good to have a goal.

-Excerpted from "Children Learn What They Live"

Dorothy Nolte's poem could very well have formed the basis for the Teacher Expectations and Student Achievement (TESA) training program. TESA is an inservice training model for teachers of all grade levels and all subject areas developed by Mary Martin and Sam Kerman (1980) of the Los Angeles County School System.

In 1971, Martin and Kerman initiated a research project to determine the impact of teacher expectations on student achievement. With funds from an ESEA Title III grant, they identified fifteen interactions teachers initiate with students which the researchers felt were supportive and motivating. A coding instrument was designed to use during observations in the classrooms. A total of 742 teachers in

thirty classrooms, spanning all subject areas and grade levels, k-college, were observed. Every teacher was observed twice in a two-week period. The information gathered from these observations was used to develop the first TESA inservice model.

Workshops were conducted with teachers during which they were observed practicing the identified interactions. At the end of the three-year period, 2000 students previously identified as "low achievers" showed statistically significant academic gains. In addition, a comparison of records showed that there were fewer absences and fewer discipline referrals among this group.

Martin and Kerman concluded that there are motivating and supportive interactions which teachers practice more frequently with children they perceive to be high achievers than they do with children they perceive to be low achievers. This inequitable behavior affects the child's school performance.[1]

Program Description

The overall objective of the TESA program is "the accelerated academic growth of the perceived low achievers." The workshop objective is to "motivate teachers to interact in supportive and motivating ways with "lows" as frequently as they do with "highs."

[1]Kerman, S., Kimball, and Martin, M. (1980). Teacher Expectations and Student Achievement, Coordinators Manual. Los Angeles, CA: Phi Delta Kappa. A1-A7, H1-H7, G3.

TESA is coordinated in a school district by a district staff who learns in a three-day Coordinators' Training Seminar how to administer the program and conduct the inservice workshops for teachers.

The teacher inservice training includes instruction in fifteen interactions (see Chart A). These interactions are presented in

Chart A - Interaction Model

UNITS	STRAND A: RESPONSE OPPORTUNITIES	STRAND B: FEEDBACK	STRAND C: PERSONAL REGARD
1	Equitable distribution of response opportunities	Affirm or correct student's performance	Proximity
2	Individual helping	Praise of learning performance	Courtesy
3	Latency	Reasons for praise	Personal interest/ Compliments
4	Delving	Listening	Touching
5	Higher level questioning	Accepting feelings	Desisting

segments during a series of five three-hour workshops held approximately one month apart. Each workshop session includes:

Review of literature and research;

Demonstration of interaction techniques;

Group interaction;

Role playing.

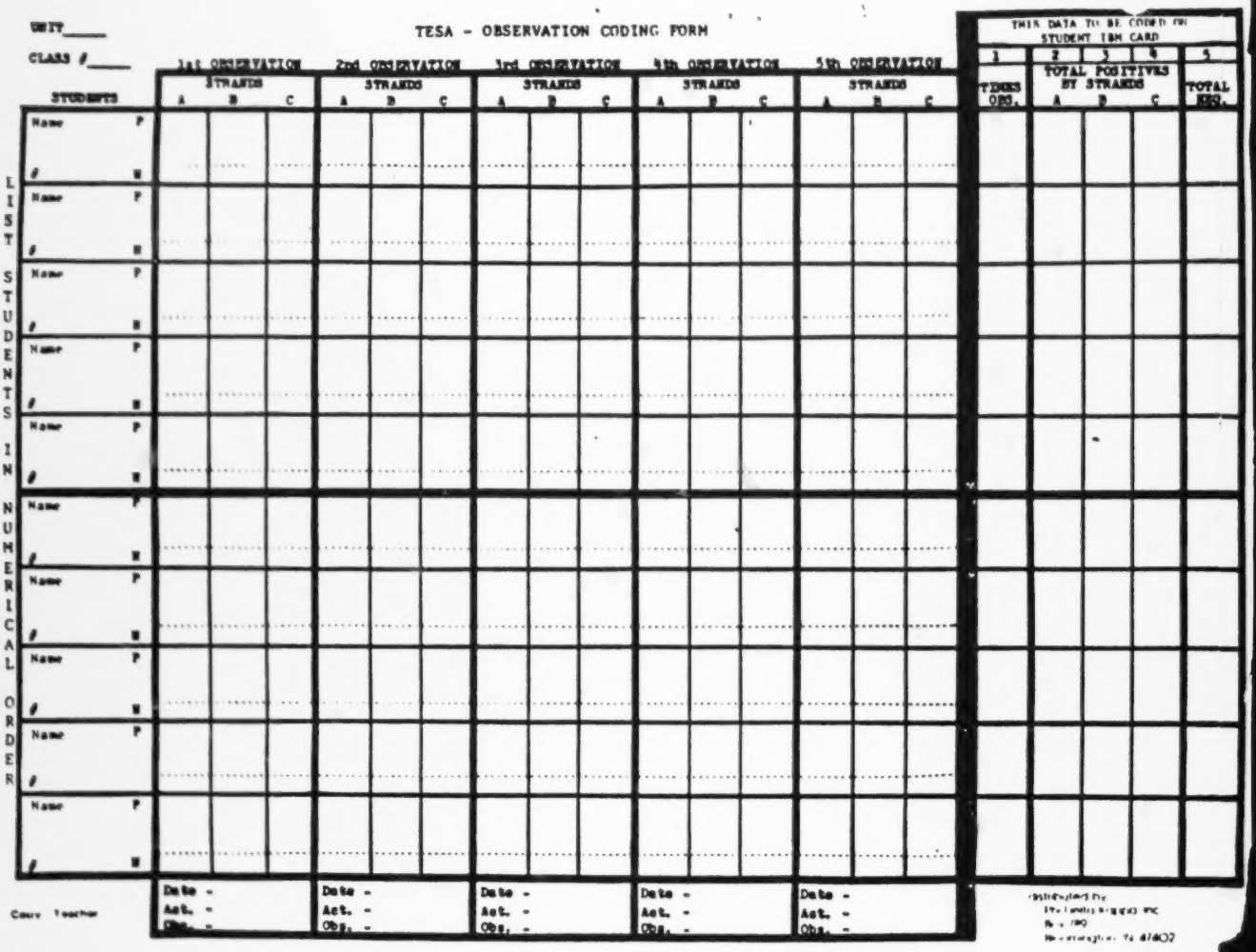
During the period between workshops, participants develop their skills by:

Directing the interaction model toward targeted students in their classes (five "highs" and five "lows");

Observing and coding each other in the classroom to establish the frequency and equity of interactions occurring with the targeted students.

Interactions are coded on the individual teacher's coding sheet (see Chart B).

Chart B - Format of Teacher Observation Sheet



Half-day substitutes are provided for teachers following each workshop to enable them to observe the members of their teams. Each member of the team is observed a total of four times (once by each member) (see Chart C).

Chart C - Sample Released Time Observation Schedule

TIME OBSERVED:	8:30 thru 9:00	9:10 thru 9:40	10:00 thru 10:30	10:40 thru 11:10	11:20 thru 11:50	
	Teacher #1	Teacher #2	Teacher #3	Teacher #4	Teacher #5	
TUESDAY	Released ½ day	Observed By #1	Observed By #1	Observed By #1	Observed By #1	1st Week Following Workshop
THURSDAY	Observed By #2	Released ½ Day	Observed By #2	Observed By #2	Observed By #2	
TUESDAY	Observed By #3	Observed By #3	Released ½ Day	Observed By #3	Observed By #3	2nd Week Following Workshop
THURSDAY	Observed by #4	Observed By #4	Observed By #4	Released ½ Day	Observed By #4	
TUESDAY	Observed By #5	Observed By #5	Observed By #5	Observed By #5	Released ½ Day	3rd Week Following Workshop

Trainees are given feedback on the interaction profile at each workshop session that follows the observations.

The TESA program involves those principles which are most often associated with effective inservice efforts:

Peer observation across gradelines and subject areas;

Sharing, feedback, and follow-up;

Focus on specific strategies and a process for achieving change;

Actual practice of skills with peer observers;

Significant change which occurs for all children in the classroom.[2]

These features help build commitment for the TESA concept among the trainees.

When TESA interactions are practiced consistently by teacher trainees, behaviors toward all students are more equitable. All students receive the supportive and motivating interactions they need to make significant academic gains, feel better about themselves, and develop more positive attitudes toward learning; in short, they are empowered to achieve.

Related Research

Do teacher expectations influence to a great extent student achievement? This question has been an intriguing one for educational researchers. The TESA program is based on research which indicates that indeed they do.

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[2]Dodge, D., Bryant, B., and Guillen, L. Shaping Teacher Expectations For Minority Girls (pp. 1-4). Washington, D.C.: Creative Learning, Inc.

Although not the first research in this area, Rosenthal and Jacobsen's experiment, Pygmalion In the Classroom[3], sparked tremendous interest in the subject of expectancies. Teachers were told that an identified group of students were "late bloomers" who, according to I.Q. scores, could be expected to make significant gains by the end of the school year. The data was fictional. At the end of the year, these students, selected randomly, did, in fact, attain higher scores than previously expected.

Rosenthal and Jacobsen called this effect on student performance "The Pygmalion Effect". When the teachers' behavior changed toward students they considered to be low achievers, their more positive expectations caused them to treat the children differently. The result: children performed better. This research focused attention on the impact of the following variables on students:

Self Esteem - differences among students occur when children are exposed to negative expectancy messages.

Socialization - repeated failure can result in inappropriate behavior which often leads to negative interactions.

Educational Opportunity - children for whom teachers have negative expectations are more frequently left out of activities and experiences which reflect high expectations and support for those expectations.

Evaluation of Performance - children for whom teachers have low expectations generally receive lower evaluations for their work.[4]

In 1960, five separate research projects were conducted to determine if there is a causal relationship between teacher behavior

[3]Dodge, Bryant, and Guillen. pp. 17-18.
[4]Ibid.

and student achievement. Researchers Jeter, Good and Brophy, Clifford, Cooper and Dweck et. al. concluded that teacher behavior does indeed affect the student's:

Response to the teacher;

Initiation of activity in the classroom;

Class appropriate behavior;

Feelings about self, school, and the teacher.[5]

Although Thomas Good does not claim a causal relationship between teacher expectations and student achievement, he insists that, "...at a minimum, teachers' expectations and their subsequent behavior sustain differences in student performance levels even if they do not create them." He cites specific ways that teachers vary behavior toward high and low achievers:

Seating low achievers farther away from the teacher or in a group;

Paying less attention to "lows" in academic situations (fewer smiles and fewer eye contacts);

Calling on "lows" less often to answer questions;

Waiting less time for "lows" to answer questions;

Providing low achieving students with less accurate and less detailed feedback than "highs";

Demanding less work and effort from "lows" than from "highs";

Interrupting the performance of low achievers more frequently than that of high achievers.[6]

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[5]Dodge, Bryant, and Guillen. p. 77.
[6]Watson, (1964, May). What You Get Is What You Expect. Virginia Journal of Education. pp. 19-20.

More recently, William Raspberry, the Washington Post columnist, stated in an article entitled, "Great Expectations for Black Children", that:

> "Teachers, influenced by test data and other pervasive rumors of black inferiority, tend to expect less of black students; black students tend to accept the judgement of their intellectual inferiority and their resulting poor performance fulfills everybody's expectations."

He goes on to cite the case for missing Chinese basketball players:

> "...Genetics and innate ability alone cannot explain the almost total absence of Chinese players from post high school basketball... surely the same physical and mental agility, the same hand-eye coordination, the same quickness and body control that produces so many outstanding gymnasts and tennis players could produce at least one NCAA point guard. Might it be that Chinese youngsters, seeing no one like themselves doing particularly well on the courts, saddled with constantly reinforced assumptions that their talents lie in other directions, and embarrassed by their awkwardness the first time they try basketball, simply choose not to try?"

Describing the case for the black youngster, he comments:

> "A black youngster will rarely allow his initial awkwardness on the court to convince him that basketball is not his game. His expectation is that he will learn to play the game well. And because he fully expects to succeed, he can be persuaded to undergo endless hours of instruction, practice and drill."

"Is it possible," Raspberry wonders, "to create similiar expectancy for intellectual success?"[7] The authors of TESA believe it is.

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[7]Raspberry, W. "Great Expectations For Black Children". Washington Post, Washington, D.C.

Delivery System

During the first year of the TESA program in the Fairfax County Public Schools (FCPS), the Office of Staff and Organizational Development collaborated with George Mason University staff to develop a syllabus for a graduate level TESA course. The course was named EDUC 500:ISED Teacher Expectations and Student Achievement. Two graduate credit hours were awarded for students receiving grades A, B or C. Additional course requirements included an extended seventh session and an extended written assignment, either a journal or a paper. Students could contract for A, B or C grades in the course. Additional goals were established for each session which included demonstrations of the formation of expectations, nurturing of expectations, contrasting visual and auditory learning styles, effects of student isolation, and teacher assumptions about student's level of vocabulary comprehension.

Instructors for the course were selected from the group of human relations specialists, teachers, and administrators who had attended the TESA Coordinators' Training Course. Additionally, these educators had to meet the criteria established by George Mason for adjunct professors. During the first year, approximately 650 teachers took the GMU course for graduate credit.

Currently Fairfax County offers approximately sixteen non-credit sections of TESA per year. Courses run from October through March and average 25 to 30 participants. To date an estimated 2000 teachers have received the TESA training. The TESA program is funded through the Minority Performance Fund, FCPS Department of Instruction. The course

is coordinated and managed by the Office of Planning and Organizational Development and the area coordinators. In establishing a climate for teaching-learning in the classroom, TESA compliments the 4MAT teaching/learning style process which is currently being implemented in a number of schools in Fairfax County.

Evidence of Success

Since its origin in 1971, more than 1190 education agencies throughout the United States and abroad have requested and received TESA training for members of their staffs. The report of the Ad Hoc Committee on Integrated Educational Programs, California State Department of Education states, "...TESA has helped teachers recognize their biases towards students and changed their behaviors accordingly."[8]

To date no formal evaluation has been completed on the impact of TESA on student achievement in Fairfax County Public Schools. However, mid- and end-of-year course evaluations and teacher journals indicate that positive change has occurred in:

student willingness to participate in class activities and the learning process;

the quality of student feedback;

the quality of student-teacher relationships and communication;

teacher and student self esteem;

student mastery of skills and concepts taught.

[8]Kerman, Kimball and Martin. A4.

The following testimony from a Fairfax County high school mathematics teacher, who recently completed TESA training, is an example of teacher reactions to the program:

> "I really didn't know what to expect when I started this training, but I want you to know that it has caused a real change in me. So much of a change that a good friend of mine noticed the change in my behavior and attitude toward students. It has really made me focus on how I deal with children, how I talk to them, listen to them and treat them. The change was so subtle but really concrete. It has really made a difference. This has been the best year of my eighteen years of teaching."

Administrators' comments tend to give high praise to the practicality of the TESA Program and the positive effect that it has on teachers and students alike. One administrator commented that the TESA training was, "...the best inservice training program he had seen in his twenty-five years in education."

TESA can be delivered to a school system at the cost of approximately $200.00 per teacher. This cost includes instructor fee, manuals, and substitute time for observations.

For additional information on training, procedures, and cost, contact the author or:

Sam Kerman
Program Director
Los Angeles County Educational Center
9300 E. Imperial Highway, Room 246
Downey, California

Phone: (213) 922-6168

Issues and Problems To Be Resolved

Several issues remain to be resolved including the following:

A model needs to be designed to accommodate an observation process and schedule for administrators.

A different observation and scheduling process is needed for resource and special teachers who do not have regular classroom groupings (art, resource, GT, speech, etc.).

If student achievement is your concern and you are considering a course of action, it may be well to keep in mind Braun's statement:

> "...Teachers need to be sensitized to the biases and stereotypes they hold and encouraged to examine these seriously in relation to their classroom behavior. After all, it is the 'teacher's expectation of the pupil' and the vicious cycle it triggers that will determine largely the child's self-image, and, ultimately, academic success or failure."[9]

Authors of the TESA Program and staff developers involved in its implementation in Fairfax County Public Schools concur.

[9]Braun, C. (1976). Teacher Expectation: Sociopsychological Dynamics. Review of Educational Research 46:209.

REFERENCES

Blanchard, K. and Johnson, S. (1986). The One Minute Manager. New York: William Morrow and Company, Inc..

Bloom, B. (ed.). (1956). Taxonomy of Educational Objectives. New York: Longmans, Green and Co..

Braun, C. (1976). Teacher Expectation: Sociopsychological Dynamics. Review of Educational Research 46:209.

Brophy, J. and Good, T. (1971). Teacher-Child Dyadic Interaction: A Manual for Coding Classroom Behavior.

Dodge, D., Bryant, B., and Guillen, L. (1981). Shaping Teacher Expectations For Minority Girls. Washington, D.C.: Creative Learning, Inc. pp. 1-4.

Good, T. and Brophy, J. (1971, April). "The Self-Fulfilling Prophecy." Today's Education. pp. 52-53.

Keating, K. (1983). The Hug Therapy Book. Minneapolis, Minn: Comp Care Publications.

Kerman, S. and Martin, M. (1980). Teacher Expectations and Student Achievement, Coordinators Manual. Los Angeles, CA: Phi Delta Kappa. A1-A7, H1-H7, G3.

Kiersey, D. and Bates, M. (1978). Please Understand Me. California: Prometheus Nemesis Books.

Maynard, W., et. al., (1973). School Climate Improvement: A Challenge to the School Administrator. Denver, Colorado: CFK Ltd.

Raspberry, W. (no date). "Great Expectations For Black Children". Washington Post, Washington, D.C..

Watson, M. (1964, May). What You Get Is What You Expect. Virginia Journal of Education. pp. 19-20.

Zahorik, J. and Brubaker, D. (1972). Toward More Humanistic Education. Milwaukee and Greensboro: Wm. C. Brown Company Publishers.

THE ENHANCED INSTRUCTIONAL PROCESS

by Joan Bloomer

"The Enhanced Instructional Process" is a new staff development program in Prince William County Schools which combines elements from the instructional philosophy of Dr. Madeline Hunter with the "Classroom Management Training Program" developed by Dr. Frederick Jones. Joan Bloomer is a Teacher/Trainer Coordinator with the Staff Development Office of the Prince William County Schools. She can be contacted at 703-791-7353.

Program Description and Objectives

A new staff development program was established for Prince William County Schools during the 1986-87 school year which is currently entitled "The Enhanced Instructional Process" (EIP). This name was originally selected because the program is based on a lesson delivery format which was already in place in the school system.

The Enhanced Instructional Process consists of the same components as other similar programs for effective teaching instituted in school systems throughout the United States. It is based on the premise that teaching is a three-dimensional decision-making process which involves content, student behavior, and teacher behavior. This premise has been developed and taught by Dr. Madeline Hunter and other leading educators.

Focal points of the program include the concepts of task analysis; hemisphericity; teaching at different levels of complexity (Bloom's Taxonomy); questioning techniques; the theories of transfer of learning, retention, motivation, and reinforcement; and the design and

delivery of instruction. Skills of effective teaching which are taught include teaching to the objective, monitoring and adjusting, and focus. All of these concepts and skills are addressed in context as they apply to an instructional design and delivery model which is already in use in the classrooms of the school system. This model was one instituted in the Classroom Management Training Program established by Dr. Frederick Jones of Santa Cruz, California.

Objectives of the Enhanced Instructional Process training include:

1. To provide knowledge to enhance the understanding of the principles which undergird efficient and effective delivery of instruction.

2. To provide opportunities for teachers to develop and practice instructional skills with assistance from a trainer and/or a peer.

3. To develop an instructional support system among professionals within the system.

4. To use the scientific principles of instruction to enhance creative teaching.

5. To standardize expectations and provide a skill development program to enable professionals to achieve those expectations.

6. To expand and utilize consistent terminology which explains professional teaching.

Need and Justification

Approximately five years ago, Prince William County Schools began a series of staff development programs taught by Dr. Fred Jones. One component of the "Classroom Management Training Program," developed by Dr. Jones, was the Positive Instruction element. This component included a tri-modal design for the delivery of instruction. During the 1985-86 school year, all professional personnel were provided

opportunities to learn and practice the elements of the tri-modal design. Beginning with the 1986-87 term, the teacher evaluation instrument included elements based on this model as a major component.

While utilizing the model in delivering instruction, teachers and other staff members determined that there were skills and principles which were not being applied, but would enhance student learning if incorporated. The tri-modal delivery system often seemed to be interpreted as a linear series of rigid components which constrained artistic and effective teaching. Although the model was never intended to become a linear system, it had that impact when it was incorporated in the evaluation process.

It was determined, therefore, that expanding the model to include the principles of learning and the factors of planning, as well as the skills of focus, teaching to the objective, and monitoring and adjusting, would enhance the effective use of the design and delivery model which was already being utilized. These new components would enrich the teaching-learning process as well as expand its horizons for students and teachers.

Delivery System

Beginning with the 1987-88 term, teacher training in the Enhanced Instructional Process will be delivered in six input days by teacher-administrator coaching teams who have successfully completed a George Mason University graduate course focused on education, supervision, and the EIP. The procedures and processes for delivering the content will

reflect the same instructional strategies which the EIP model prescribes for classroom teachers in the county. This instructional process model is the multi-modal (tri-modal) design and delivery model which forms the basis of the EIP program. Components of the model include:

A. Setting the Stage
   1. Raising the level of concern/interest
   2. Review
   3. Goals/objectives

B. Acquisition of Skills
   1. Explanation (Say)
   2. Model (See)
   3. Structured Practice (Do)

   ------- Multi-modal

C. Consolidation of Skills
   1. Guided practice
   2. Generalization and discrimination
   3. Independent practice

Each of the six input days will be followed by a time for the teacher to practice the skills or incorporate the concepts learned during the input day into the classroom setting. This is consistent with the understanding that actual performance of a new technique is necessary for making it a part of the teacher's repertoire.

When the teacher has had time to practice the new skills or techniques in the classroom setting, a member of the coaching team will visit the class to observe the teacher's performance. A script of the

observations will be written and analyzed for use in a conference with the teacher. Immediate feedback will be provided concerning the teacher's application of the skill or technique. Identification of strengths will be jointly determined by the teacher and trainer and priorities will be established for extending the teacher's future performance level of the new skills and concepts.

This format for delivering the instruction in the program appears to be consistent with the principles of adult learning and those of staff development. The learners (teachers and administrators) are directly involved in the learning procedures and processes. There is immediate feedback after the performance of skills and the incorporation of concepts in the classroom. The input sessions include activities which directly involve the learners in the learning. The conferences which follow the observations provide opportunities for learners to assess the learning, practice, and utilization of the skills. The training instructor directs the conference with the teacher providing most of the discussion.

Innovative Features

Perhaps the most innovative part of the Enhanced Instructional Process Program is the manner in which the training will be delivered in future years. The staff members who participated in the initial training had been identified as outstanding teachers and as leaders among their peers. These teachers received instruction in the Enhanced Instructional Process during the 1986-87 school year in five input sessions followed by practice, observation, and conferencing.

In the future, each of these teachers will become a part of a coaching team consisting of a trainer, one or two administrators/supervisors, and three teacher-coaches. A team may have four teachers instead of two administrators. Thirty teacher-coaches were instructed during the 1986-87 term; this should provide approximately ten teams. During the summer of 1987, these coaches and administrators/supervisors will be trained in the supervision of the instructional process. This training will be conducted as a graduate level class through George Mason University with all of the requirements of a course on that level. Additional coaches will be instructed in the ensuing years, both in the Enhanced Instructional Process and in the supervision program.

Every coaching team will provide one cycle of training per year. Each member of the team will be responsible for presenting one or more of the content areas and for providing the follow-up observations and conferencing. When not acting as instructors, team members will participate as class members. In this manner, each team member will know the content of a given input day and can more effectively supervise, observe, conference, and provide feedback.

Future teacher participants will be scheduled in pairs to enable each school to establish a peer support system at the local school site. Based on the experiences of the first teacher trainees, this type of support system within the building allows each participant to have someone with whom to compare notes, plans, and results of performance. The members of each pair, or group if more than two are

participating, not only provide mutual support through peer observation, feedback, and a sharing of teaching experiences but also develop relationships which promote professional growth.

The course in supervision will add credibility to the program in the eyes of other teachers who may become participants. Collegues who are able to provide input as well as conduct observations and conferences will help teachers to recognize and understand the value of professional growth. The support system which will be the result of the colleague coach-teacher program should enhance the professional attitude and stimulate the continued growth of the teachers of the school system.

Intended Impacts

In the immediate future, training in the Enhanced Instructional Process will be provided to those who volunteer to participate. It is anticipated that middle school and senior high school department chairpersons will be among the first volunteers. In addition, depending on the number of training slots available, it is anticipated that those elementary coaches who received their initial training in the Classroom Management Training Program in the 1986-87 school year will also volunteer to participate because of a desire to continue their professional growth.

Eventually, all professional personnel in the school system are expected to participate. It is believed that the positive impact or

benefits of the program will be recognized and that all personnel will choose to become involved. Because there are approximately 2500 teachers in the system, it will require several years to provide the training to all professional staff members.

Evidence of Success

Because this is a new program, evidences of success are based entirely on the observations and testimonials of those participating during the first year. The content of these testimonials may be summed up in several key phrases. "Awareness," "new techniques," "teacher growth," "improvement in student performance," "increased self-confidence," "improved self-image," and "pride in the accomplishments of teaching" are among the descriptors used by participants in the final evaluation of their involvement.

In the words of one high school social studies teacher:

> I have gained an "awareness" of various skills and methods. I now can categorize a lot of things that I have been doing for a long time; I also can be "aware" of things that need to be improved.

A senior high school vocational education teacher stated:

> I have gained many teaching techniques I can use in the classroom. I have gained confidence in my teaching techniques. I can better (more accurately) evaluate my own teaching, the techniques being used. The observations were very valuable for positive teacher feedback.

From a middle school music teacher came the comments:

> The EIPP (Enhanced Instructional Process Program) has sharpened my teaching techniques and improved my understanding of the instructional process. I have noticed an

improvement in student scores. With one particular skill, which I have been teaching for eight years, all but one of my students experienced immediate success. I have been very pleased with the results of the EIPP.

A middle school math teacher was very enthusiastic about the results of using the program in her classroom, and offered to write an article for the newsletter which serves as the medium of communication in the school system. She stated:

> I have gained confidence in my teaching techniques. I now have a choice of techniques that meet a wider range of needs. The students' grades have really improved, ESPECIALLY those of the slow learners.

All teachers who participated during the first two cycles of training perceived the observations and conferences to be a very significant part of the program. Because these were conducted on a positive note with an emphasis on teachers contributing most of the input, participants viewed them as non-threatening and beneficial.

As one senior high school art teacher stated:

> I liked having a copy of the script and the observation form when the conference was over. In every case the conference was encouraging and helpful. Following the conference, as I was driving home, it occurred to me that the observer had used the same questioning techniques with me during the conference that we had decided I would use as an extension with my classes the next day. It's this kind of thing that causes me to have the deepest respect for this program.

Issues and Problems to be Resolved

As mentioned earlier, there is the need to provide instruction in the supervision of the Enhanced Instructional Process for the teacher-coaches and administrators/supervisors who will become a part of the

teaching teams in the future. It is anticipated that the GMU graduate course established for this purpose will be taught once during the summer of 1987 and again during the 1987-88 term as often as is necessary to ensure an adequate number of persons to provide appropriate supervision through observations and conferences.

Presently the program is entitled the "Enhanced Instructional Process," which has negative connotations as a result of the inclusion of the term, "instructional process," in the evaluation instrument. Participants have suggested that another name be selected in order for the new program to establish its own identity.

A third issue of concern is the large number of professional personnel who will need and/or want to become participants in the program. One additional trainer will be employed in the 1987-88 school year; this will allow the formation of ten teaching teams and enable approximately 250-300 additional teachers to receive instruction. With approximately 2500 professional staff members, it will take an inordinate amount of time to train all potential participants. It is hoped that adequate funding will be provided in future years to speed the process of training and allow all teachers to participate as soon as possible.

INSTRUCTIONAL EFFECTIVENESS: MAKING EXCELLENCE A HABIT

by Dr. Joan Tannenbaum

Implementing Madeline Hunter's "Model of Effective Instruction" across all grade levels and across a variety of disciplines is the goal of the staff development program in the City of Falls Church. For further information, contact Dr. Joan Tannenbaum, Assistant Principal at George Mason Junior-Senior High School in Falls Church. She can be reached at 703-241-7660.

George Mason Junior-Senior High School, a small school of approximately 600 students in grades 6-12 is the only secondary school operated by Falls Church City Schools. Surrounded as it is by school systems much larger in size, it constantly seeks ways to maintain its identity and stay abreast of educational developments. The school is staffed by highly trained professionals who have many years of experience and who remain in residence for a long time. Due to the small size of the school, staff members typically play many different roles and wear many different hats. Their duties often range over a wide variety of disciplines and a multitude of grade levels. It is not unusual, for example, to find the Spanish teacher instructing Levels I through V across grades 8 through 12 while also coaching a sport and serving on two major school committees. Because of its unique size, its long-term professional staff, and its short chain of command, there is an ever-present interaction among all members of the school community. This climate of openness provided the foundation for our school program of renewal and fostered the challenge of making excellence a habit.

School reform initiatives today range from state and local mandates to district-wide and individual school-based programs. As Passow (1984) states: "Everyone is in on the act; but everyone's act is different." The school reform initiative at George Mason stemmed from many bases including the systematic renovation of the curriculum and the development of school-business-community partnerships. However, the primary focus of our renewal emerged from an emphasis on the enhancement of instructional skills.

Although our process of renewal is still taking place, it has already engaged many people and involved much time, effort, and allocation of resources. Presently, it has evolved through three initial phases: (1) the planning stage; (2) the pilot project; and, (3) the staff development program. Each phase has offered problems for resolution and opportunities for growth; each phase has added a special dimension to the challenge of continued excellence.

Planning for Effective Instruction: 1984-1985

As the school began to plan its renewal program, the need was to look at who we were, what we had accomplished, and where we were going. Through this reassessment, two related school-based needs emerged. One was the need for a common language whereby teachers and administrators could openly converse about instruction, supervision, and evaluation. The second was the need for an appropriate theoretical model which could provide a firm and cohesive foundation for instruction and for on-going staff development activities.

After exploration, study, and discussion of many models that seek to improve teaching, school division administrators determined that Madeline Hunter's Model of Effective Instruction offered a fit for our needs. The push of the reform movement, our own emergent school-based needs, and the elements of the Hunter Model all converged as our common ground for renewal.

The Pilot Project of Effective Instruction: 1985-86

The model developed by Madeline Hunter at the University of California at Los Angeles (UCLA) has been used across the United States and around the world in a variety of school and government settings. There have been a few research studies based on the model (Stallings, 1984; Wolfe, 1984); however, most of these investigated the effects of the training of elementary teachers in the areas of reading and mathematics. The focus of efforts in Falls Church was more expansive. We were concerned about the implementation of the model across grade levels, across various disciplines, and involving more than basic instruction.

Whether or not the already established body of information regarding the model suggested a successful means of addressing our concerns needed to be investigated. To do this, a pilot project was selected as the safest and most efficient approach.

A self-selected group of teachers and administrators volunteered to attend a series of four sessions on the Hunter Model to be presented by an outside consultant who had had many years of training experience.

These individuals represented a variety of grade levels as well as a diversity of instructional areas including English, mathematics, social studies, science, business, health, and physical education.

The sessions were held on-site and were designed to train the participants to apply certain elements of the model appropriately. The lecture/discussion format, followed by practice experiences, was chosen as the approach most conducive to our needs. Substitute teachers were contracted for the classes of the participating teaching staff.

The objectives for the pilot program were as follows:

1. To become familiar with the research of effective teaching;
2. To be able to recognize effective teaching behaviors;
3. To articulate the teaching behaviors as they relate to the research;
4. To develop skills of relating teaching behaviors to criteria of excellence; and,
5. To increase one's repertoire of effective teaching skills.

Program content included an overview of the total teaching act, an inquiry into Bloom's Taxonomy of Educational Objectives, and an understanding of motivation, reinforcement, retention, and transfer theory. Feedback from the participants in the pilot study indicated that:

the Hunter Model provided a common language for and increased knowledge about instruction across grade levels in more than basic skills;

the clinical supervision component of the Hunter Model offered opportunities for positive discussion about instruction among teachers and administrators; and,

the process of coaching in the application of skills of the model was an integral part of the training program.

Besides these findings, one of the most powerful impacts that emerged from the initial training was the stated need of the participants themselves for professional renewal. Sharing knowledge and feelings about instruction became a vehicle to decrease feelings of teacher isolation and a key element for our continued professional growth.

Based upon a variety of quantitative and qualitative training data, a three-credit staff development course in the Effective Instruction Model of Madeline Hunter was offered through George Mason University to all interested staff members during the 1986-87 school year.

Staff Development Program on Effective Instruction: 1986-87

As plans were made to encourage and engage more staff members in the training on the model, we turned to the research in the field to find useful insights for our program. Key themes gleaned from the research indicated that for staff development activities to be effective, our program needed to be ongoing, concrete, and school-based. In addition, our staff development efforts needed to provide continuous opportunities for modeling, observing, and coaching of participants' skills.

Mindful of these considerations, a three credit contract course was organized and delivered through George Mason University to expand

the teacher training program in effective instruction and to build a mentor/peer coaching program. During the spring of 1987, there were eighteen staff members enrolled in this course, eight of whom had participated in the initial training and who now were being trained as mentors.

The format utilized in this course reflects the previous approach of the pilot program with an increased attention to the clinical supervision and coaching components of the model. This increased attention reflects our attempt to resolve one of the problems in our program. In both the pilot project and throughout the subsequent course, there was insufficient opportunity for the participants to practice and develop teaching skills addressed by the Hunter Model. Time and time again, we found that participants' knowledge of the model's theory, by itself, was inadequate for success. What was lacking was time built into the training for effective practice and coaching in the model's skills. Therefore, two observation periods followed by conferences were required of all participants during the course. Individuals who were training to be instructional mentors were paired with the other participants and practiced techniques in supervision and conferencing. In addition, they have been asked to participate as committee members for the mentor proposal program. Presently, the mentor proposal is composed of two objectives to be accomplished during the fall of 1987: (1) instruction of all staff members in the basic language of the Hunter Model and (2) the further in-depth training of mentors in the Hunter Model's observation, analysis, and conferencing skills.

The area of coaching is still one of the primary areas of concern in our program. The concept of practice, feedback, and mentor coaching is still one which has not become as pervasive nor as accepted as we would like. It is hoped that in the next phase of the staff development program, this concern will be effectively addressed.

Although our direction for the 1987-88 school year is tentative at present, plans call for each and every staff member at George Mason Junior-Senior High School to participate in instructional enhancement by acquiring the "common vocabulary" of the model. A committee of interested teachers and administrators is developing objectives and guidelines for this phase of our program.

Through its existence and evolution, the staff development program in effective instruction has generated much discussion and debate about effective teaching among all members of the school community. The dialogue, though difficult at times, has assisted us in crystallizing our school-based instructional needs and has provided us with a vehicle for individual and collective improvement.

The most decisive question for George Mason still remains: "As a good secondary school, why is this improvement necessary?". If excellence for us is more a state of becoming than a state of being, then the mission of enduring excellence in teaching and learning will be tough work; it takes habit; it takes time. Our search for excellence continues to celebrate this challenge.

REFERENCES

Berman, P. and McLaughlin, M. (1978). Federal Programs Supporting Educational Change. Volume 8: Implementing and Sustaining Innovations. Santa Monica, California: Rand Corporation.

Joyce, B. and Showers, B. (1980, February). Improving Inservice Training: The Messages of Research. Educational Research 37, 379-385.

Lawrence, G. (1974). Patterns of Effective Inservice Education: A State of the Art Summary of Research and Procedures for Changing Teacher Behaviors in Inservice Education. (Publisher unknown). Tallahassee, Florida.

Passow, A. (1984, June). Tackling the Reform Reports of the 1980's. Phi Delta Kappan 65, 674-683.

Saphier, J. and King, M. (1985, March). Good Seeds Grow in Strong Cultures. Educational Leadership 42, 69-70.

Stallings, J. (1984, April). Madeline Hunter's Model: A Study of Implementation and Student Effects. A Paper Presented to the Annual Meeting of the American Educational Research Association. New Orleans, La.

Wolfe, P. (1984). Implementation of the Hunter Instructional Model: A Staff Development Study. Unpublished dissertation. La Verne, California.

STAFF DEVELOPMENT FOR GIFTED AND TALENTED EDUCATION

by Diana Hasuly

A long-range plan with consistent emphasis on professional growth has enabled Arlington Public Schools to provide an effective staff development program for G/T educators which utilizes a variety of delivery mechanisms. For further information, contact Diana Hasuly, Supervisor of the G/T program in the Arlington Public Schools, at 703-558-2775.

Program Description and Objectives

The Gifted and Talented (G/T) Staff Development Program for the Arlington Public Schools was primarily established for the purpose of training staff to work with gifted learners within the context of the regular classroom using grouping arrangements which include non-gifted students. Criteria for selecting regular classroom teachers who would be receptive to training over and above the standard requirements, who would be willing to view standard educational practices from a different perspective, who would be able to handle abstract and complex principles for differentiating instruction, and who would not feel intellectually intimidated by their students were debated extensively. After a year of study on the teacher selection criteria, the Arlington School Board adopted a policy requiring training in gifted education for teachers meeting selected criteria.

A five-year plan for accomplishing this training objective was conceived. The plan outlines the scope and sequence of staff development opportunities, models for delivery, budget, objectives, personnel, and timeline. A variety of staff development delivery mechanisms are utilized. Opportunities for attendance at national and

local conferences, after school and summer workshops on a paid basis, and tuition-free weekend and summer graduate courses are provided. Personnel to conduct training include consultants nationally known in specific areas of gifted education, state university faculty, school district content experts, and division teachers with specific expertise.

The primary objective of the program is to train staff, teachers, and administrators in various competencies of gifted education. In addition, secondary objectives include:

the development of curriculum materials for use with the gifted

the establishment of a cadre of "in-house" teacher experts in selected topics of gifted education

the organization of demonstration classroom sites

the constitution of a network of "contact" teachers at each school who would provide school-based inservice, disseminate information, facilitate the identification process for students, and conduct parent workshops.

Need and Justification

The Arlington School Board mandates teachers of specified field(s) or grade levels to successfully complete academic courses and/or inservice workshops that are in addition to state certification requirements. Therefore, teachers selected or designated to work with gifted/talented students are asked to complete a minimum of 3 graduate credits and/or 40+ inservice hours. In addition, they are governed by criteria found in the Virginia Plan for the Education of the Gifted and suggested staff recommendations for special needs criteria. These

special needs criteria are supplied to principals to guide their selection of teachers of the gifted.

In order to comply with school board policy and Virginia state regulations governing gifted programs, a systematic and sequentially developed professional development program was designed specifically for Arlington staff.

Delivery System

Staff development options are delivered through a variety of mechanisms including inservice sessions on a paid basis, tuition-free courses contracted with universities, training institutes featuring experts in the field, demonstration lessons by master teachers, and video-taped observations and critiques. A variety of time frames are offered for these professional development options including after school, weekends, summers, and during school hours.

Staff development activities are designed for different purposes to address various levels of teacher experience. These are:

1. basic content for the purpose of establishing a foundation and a pattern for use;
2. intermediate level for the purpose of making changes to increase outcomes;
3. advanced level for the purpose of creating deliberate efforts to integrate new and existing outcomes;
4. and lastly, an enrichment level for the purpose of seeking more effective or renewed alternatives.

The instructional strategies used in the program are an intentional mixture of instructor-directed presentations and group- and self-directed learning. The progression of content complexity from concrete to abstract is dependent upon purpose, intended outcomes, and the levels of the participating teachers.

Short-term as well as long-term applications of content are scheduled. Both theoretical and practical applications are built into inservice and course syllabi. Practice without a basic understanding of the theoretical foundation does not create a strong rationale which staff can justify to themselves and their public. Therefore, both theory and application are intentionally included and integrated in the program.

Innovative Features

The innovative features of the G/T professional development program are found in the match between participant and system needs:

1. A variety of staff development models/delivery systems are used to accommodate learner styles and schedules.
2. Content that corresponds directly to the instructional program for students is emphasized.
3. Objectives which are practical in application and pertain to what teachers have assessed as their needs in teaching gifted/talented students are applied.
4. Opportunities to practice course content and strategies and to receive feedback within a short time frame are provided.
5. Knowledge and skills which relate specifically to gifted learners and demonstrate a contagion effect to other learners are presented.

6. Opportunities are provided to train with nationally recognized experts in the field who are employed as adjunct instructors by local universities.

7. Intellectual stimulation which can be personalized beyond the educational setting, thereby enhancing the internalization of skills and knowledge and changing attitudes is encouraged.

8. Techniques for varying the levels of the program to establish a scope and sequence for the participants are presented.

9. Exchange of ideas through observation, visitation, and demonstration sessions to create a comfortable, nonthreatening environment for achieving desired outcomes is promoted.

10. Analysis of learner experience and need are used to recruit instructors and presenters whose materials and styles are appropriate.

Intended Impact

The intent of the Arlington professional development program for gifted education is that participating teachers acquire the following competencies:

1. Knowledge of educational and psychological needs of the gifted and talented.

2. Familiarity with the characteristics of and identification procedures recommended for the academically gifted.

3. Familiarity with the characteristics of and identification procedures recommended for the creatively gifted.

4. Familiarity with the characteristics of and identification procedures recommended for the artistically talented.

5. Familiarity with the characteristics of and identification procedures recommended for the culturally disadvantaged gifted.

6. Familiarity with the characteristics of and identification procedures recommended for the handicapped gifted.

7. Understanding of a variety of delivery models for gifted and talented students.

8. Application of a variety of instructional models/educational strategies appropriate for use with the gifted and talented.

9. Ability to modify, adapt, and design appropriate curricula units of study for use with the gifted and talented.

10. Ability to incorporate instructional strategies for the gifted and talented into the regular curriculum.

11. Knowledge of appropriate methods of programing and student evaluation recommended for use with gifted and talented.

12. Experience in counseling techniques considered to be appropriate for use with the gifted and talented.[1]

As a result of the acquisition of these competencies, at least one teacher at every elementary grade level in every elementary school and at least one teacher from every secondary subject area in every secondary school will have sufficient training in gifted education to provide a qualitatively differentiated instructional program for gifted learners. Also as a consequence of training, a cadre of "teacher specialists" who are expert in one or more aspects of gifted education will be designated to serve as the school system's "local" or in-house consultants. To this end, a "G/T Professional Specialization Initiative" has recently been established.

Another possible impact of the staff development program is the establishment of a demonstration center. The purposes of the center would be to develop teacher trainer competencies for selected staff,

[1]Roeper Review. February 1987. A Journal on Gifted Education. Volume 9, No. 3, pp. 170-171.

provide enrichment opportunities for students, field test curriculum, and demonstrate desired methodology.

Issues and Problems to be Resolved

Several concerns have arisen as a result of the establishment of this staff development program. First, there is the problem of continuous monitoring of the application of stated objectives. In the main, teachers are the primary participants in the program. The administrators who evaluate them have had less training. Therefore, the question of who is qualified to evaluate the application of objectives remains unanswered.

Second, there is a dirth of highly qualified instructors for the program. Trainers in gifted education are few and expensive because of the relative newness of the field. Also, adjuncts to universities do not represent comprehensive college-approved programs. Therefore, those desiring advanced degrees must seek independent studies or travel out of the area.

Evidence of Success

Each staff development opportunity is assessed relative to the learner, the presenter, and the objectives. The participants are asked to rate themselves as learners and to give reasons for their ratings. Participants are told of the assessment process at the beginning of the program in order to understand that they have a responsibility for learning, just as the presenter has the responsibility of teaching.

A recently conducted George Mason University evaluation of contract courses in school divisions reflects the reaction of the participants to the program courses: "When a course gives me new ideas that I am able to use, and makes me more excited about teaching, that's super." ". . . (I) apply this in a practical way to (my) particular teaching situation."[2] Furthermore, the results of this evaluation clearly demonstrate the positive reaction of teacher participants to GMU credit courses in gifted and talented education.

Other evidence of success is the continuous return of participants for intermediate and advanced level courses. The Arlington School Board requires only 3 graduate hours for working with the gifted. However, 78% of the participants completing this requirement have returned for additional staff development options. In addition, 20% of those participants reaching the advanced level of coursework have completed master's programs in the area of gifted education.

Other Essential Ingredients

The key to the success of this staff development program was the conception of a long-range plan and the consistent application of the various components of the plan. An understanding of the needs, requirements, and philosophy of the school system by the provider of services, in our case George Mason University in particular, is an essential ingredient to the success of coursework provided in the program. The collaboration of agencies creates integrity and gives

[2]Jones, E. and Mosier, T. (1987, February) Inservice Education Program Evaluation. Division of Continuing Education, George Mason University: Fairfax, VA.

credibility to the process of professional growth. Furthermore, quality control factors in the selection of instructors, approval of syllabi, and assessment of objectives are enhanced because of the open line of communication between agencies.

In the developmental stages of the plan, a single, primary consultant for inservice is another crucial ingredient for success. One consultant whose philosophy, style, and presentations match the desired objectives of the school system and program is imperative. A multiplicity of consultants, though impressive, creates confusion in the minds of those being trained, since no two consultants sell the same philosophy or strategy. A mix of consultants is more appropriate at the middle or later stages of the plan; at that time, the recipients of the inservice have had a consistent and common foundation presented and can more easily integrate other perspectives. Finally, it is important for the manager, supervisor, coordinator or administrator who originally designed the plan to remain in the same position in order to lend continuity and credibility to the program.

LEARNING STYLES AND BRAIN PREFERENCES

by Dr. June Webb

Learning Styles and Brain Preferences is based upon the 4MAT System, a teaching model developed by Dr. Bernice McCarthy. The 4MAT System combines Kolb's theories of how people learn with the left brain-right brain theories of specialization. For more information, contact Dr. June Webb at 703-938-6401. She is an Area III Administrator for Fairfax County Public Schools.

"We cannot afford to force the minds of today's children into educational experiences that limit their ways of knowing."

Bernice McCarthy

Through the years educators have not been very successful in addressing the individual differences of learners. Too many students have not been able to realize their potential and, even worse, too many students have been lost. The realization that there are individual differences in learning has been recognized in theory as often as it has been denied in practice.

During the past decade there has been a renewed interest in addressing individual differences due to increased knowledge about learning styles and how the brain works (Guild and Garger, 1985). Educators are now drawing on the fields of neuroscience, neuropsychology, and behavioral science in order to expand their awareness of individual differences (Webb, 1986). Knowledge about brain behavior and learning styles is a relatively new tool at the service of teachers and schools. It provides a more in-depth view of the learner than

previously perceived, and is part of a basic framework upon which a sounder theory and practice of learning and instruction can be built.

A key to effective teaching is to become knowledgeable about student learning styles and to design instruction and materials that respond to these individual differences. In order for more students to experience optimum learning in our schools, educators must make some changes in instructional delivery. Recognizing the lack of success teachers have experienced in changing learners to fit the learning environment, it is evident that teachers must learn new ways to create a learning environment more responsive to the varying needs of learners.

The 4MAT System

To address these individual differences, the 4MAT System is proving to be be an innovative and effective instructional model. This system, developed by Bernice McCarthy (1980), capitalizes on the learning styles and brain dominance strengths of learners. Teachers are responding favorably to using 4MAT as is demonstrated by the following comments:

> 4MAT increases awareness of different learning styles and encourages teachers to find new creative ways of teaching.
>
> 4MAT reinforces the fact that we all learn differently and that's O.K.
>
> 4MAT challenges the teacher to step back and look at each learning situation in a new and fresh way.
>
> 4MAT offers alternatives to both the student and the teacher.

4MAT has conceptualized all my research, theories, and practices and has given me a working model to enhance my teaching.

4MAT is the springboard for teachers of the future.

During the process of developing 4MAT, McCarthy was able, through a grant she received from the MacDonald Corporation, to bring together a group of the leading researchers in learning styles and brain functioning. From the exchange of ideas among these experts and her own research through Northwestern University, McCarthy synthesizes a variety of learning style models but draws primarily from the work of David A. Kolb, a management expert from Case Western University, as the basis for the learning process described in the 4MAT System.

In 4MAT, two major differences are identified in how we learn. The first is how we **perceive** and the second is how we **process.** We **perceive** things in different ways. In new situations, some of us sense and feel our way, while others think things through. Those who sense and feel immerse themselves in the actual experience. They perceive through their senses. They are intuitive. Those who think through the experience tend more to the abstract dimensions of reality. They analyze what is happening and their intellect makes the first appraisal. They reason experience. One could say that we stand in different places on a continuum from concrete to abstract. The sensor/feelers tend to be more at the concrete end of the line and the thinkers tend to be at the more abstract end of the line.

After we perceive, we **process.** In processing experiences and information, some of us are watchers and some of us are doers. Some of us jump right in and try it while others watch what is happening and reflect on it. As these differences in processing were explored, examples were again found all along a continuum.

By juxtaposing the two ways of perceiving and the two ways of processing, Kolb (1984) found that it is the combination of how we perceive and how we process that forms the uniqueness of our individual styles. Focusing on Kolb's work and integrating the work of other learning-style researchers, McCarthy describes four types of learners.

Type One - "Innovative Learners"

- Seek meaning.
- Need to be involved personally.
- Learn by listening and sharing ideas.
- Absorb reality.
- Perceive information concretely and process it reflectively.
- Are interested in people and culture. They are divergent thinkers who believe in their own experience, excel in viewing concrete situations from many perspectives, and model themselves on those they respect.
- Function through social interaction.

Strength: Innovation and imagination. They are idea people.
Goals: Self-involvement in important issues, bringing unity to diversity.
Favorite questions: "Why?" or "Why not?"

Type Two - "Analytic Learners"

- Seek facts.
- Need to know what the experts think.
- Learn by thinking through ideas. They form reality.
- Perceive information abstractly and process it reflectively.
- Less interested in people than ideas and concepts. They critique information and are data collectors. Thorough and industrious,they re-examine facts if situations perplex them.

- Enjoy traditional classrooms. Schools are designed for these learners.
- Function by adapting to experts.

Strength: Creating concepts and models.
Goals: Self-satisfaction and intellectual recognition.
Favorite question: "What?"

Type Three - "Common Sense Learners"

- Seek useability.
- Need to know how things work.
- Learn by testing theories in ways that seem sensible. They edit reality.
- Perceive information abstractly and process it actively. They use factual data to build designed concepts, need hands-on experiences, enjoy solving problems, resent being given answers, restrict judgment to concrete things, and have limited tolerance for "fuzzy" ideas. They need to know how things they are asked to do will help in "real life."
- Function through inferences drawn from sensory experience.

Strength: Practical application of ideas.
Goal: Bringing their view of the present into line with future security.
Favorite question: "How does this work?"

Type Four - "Dynamic Learners"

- Seek hidden possibilities.
- Need to know what can be done with things.
- Learn by trial-and-error, self-discovery.
- Enrich reality.
- Perceive information concretely and process it actively.
- Are adaptable to change and relish it. They like variety and excel in situations calling for flexibility.
- Tend to take risks. They are at ease with people, but are sometimes seen as pushy. They often reach accurate conclusions in the absence of logical justification.
- Function by acting and testing experience.

Strength: Action, carrying out plans.
Goals: Making things happen; bringing action to concepts.
Favorite question: "What can this become?"

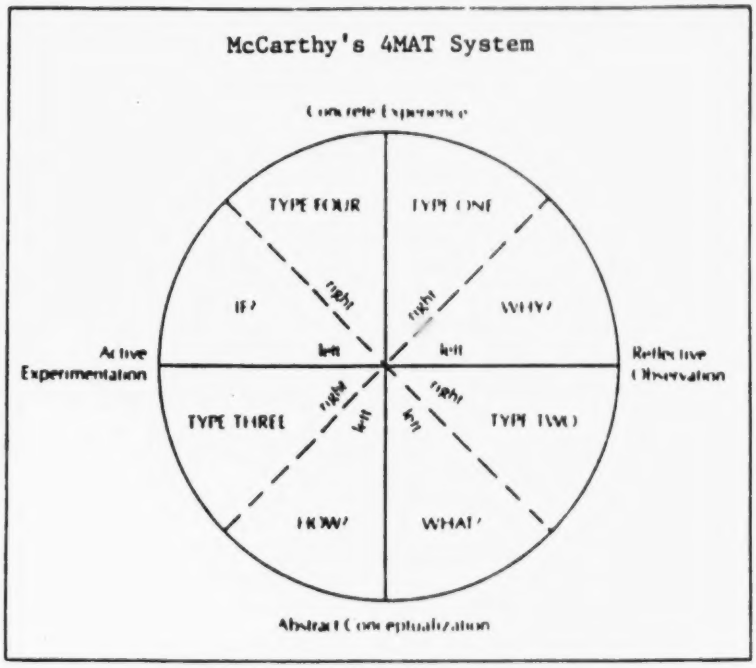

Figure 1

McCarthy also explored the research findings on the specialization of tasks of the right and left hemispheres of the brain. This work led her to look carefully at each of her four types of learners and explore how the right and left hemispheres would function for each of these unique learning styles. The overlay of the right and left brain hemisphericity on each of the four learning styles resulted in the 4MAT model. (See Figure 1.)

McCarthy does not believe that it is necessary to match the student with a teacher possessing the same style, but that the learning process should move the student through the learning cycle. This should be done in sequence from answering the "why" questions of Type One to the "if" questions of Type Four. Beginning in Quadrant I, personal meaning and motivation should be set for what is to follow.

Moving on to Quadrant II, the emphasis should be on acquisition of the new knowledge and concepts. There should be practical application in Quadrant III, followed by more complex synthesis and extension in Quadrant IV. The left and right hemispheres should be addressed in each of the four quadrants, making the 4MAT teaching cycle an eight-step process.

Using this process, McCarthy believes that each learning style will be addressed some of the time. Consequently, all learners will have the opportunity to develop their own natural abilities when they are working in their learning style and will also be able to expand their abilities to be good learners by developing strengths in the other learning styles.

Staff Development Plan

During the 1986-87 school year, Administrative Area III of Fairfax County Public Schools (FCPS) began implementing a staff development plan designed to incorporate and translate research on learning styles and brain preferences into effective practice through the use of 4MAT.

The early phases of the staff development plan centered on providing training opportunities for some key personnel designated to provide leadership for its implementation. In addition to sending some administrators and teachers to 4MAT workshops, a project director was identified and was trained by McCarthy and Associates to be certified as a presenter of the 4MAT System. Through a graduate level course

offered by George Mason University, the project director now trains other FCPS staff to provide in-house training for their faculties.

As the staff development plan was expanded, the following objectives for the George Mason University "training the trainer's" course were identified:

To incorporate and integrate relevant research on learning styles and brain preferences into a comprehensive and coordinated model of inservice training for administrators and teachers.

To train a cadre of trainers who can provide staff development and ongoing support at the school-based level.

To involve administrators and teachers in planning for implementation and evaluation of the 4MAT instructional model.

To encourage principals to take the trainers course along with teachers to strengthen their roles as instructional leaders.

To train teachers as "In-House Coaches" to serve as 4MAT project facilitators and resource people in their schools.

To utilize peer coaching/feedback techniques to increase teacher involvement with and support of one another.

To provide ample opportunities for discussion among participants, practice in lesson plan development, and application of lesson plans with feedback.

The major training components of the staff development plan are as follows:

Training the Trainers Course — A three-hour graduate level course offered through George Mason University entitled "Learning Styles/ Left-Right Brain Techniques for Trainers" taught by the project director. This course is for administrators and teachers who want to be prepared to provide training and leadership in their

	schools for the implementation of the 4MAT instruction model.
Local School College Credit Courses	A three-hour graduate level course offered through George Mason University entitled "Learning Styles/ Left-Right Brain Techniques" taught by participants who have completed the trainers' course and have been approved by George Mason University. This course is for teachers who are interested in learning how to implement the 4MAT model in their classrooms.
Local School Non-Credit Courses	Taught by participants who have completed the trainers' course.
Teacher Inservice Training Workshops	Conducted in the local schools or Area III Office by participants who have completed the trainers' course.
Monthly School-Based 4MAT Meetings	Conducted by "In-House" Coaches who motivate staff, provide training, and give feedback on 4MAT lesson plans.
Community Awareness Session	Conducted by the project director for the Community/Parent Advisory Committee (C/PAC) to the Area Superintendent.
Parent Evening Sessions	Conducted for parent groups including PTAs and the Fairfax County Association for the Gifted.

Participation in 4MAT training has been on a voluntary basis. Currently, teachers and/or principals from ninety-four percent of the forty-eight Area III schools have been involved. There is participation by one hundred percent of the faculty in three elementary schools.

Research Evaluation Design

Another component of the Area III 4MAT Project is a research evaluation design regarding the application of 4MAT. Ninety-one teachers in four elementary schools are participating in the evaluation which is focusing on teachers' attitudes, 4MAT content mastery, and the ability to develop and implement 4MAT lessons.

The evaluation is measuring the following as it relates to teachers:

Level of familiarity with the four learning styles and the brain hemispheric modalities included in the 4MAT model.

Perception of the strengths and weaknesses of 4MAT as a teaching model.

Skill in developing and teaching 4MAT lesson plans.

Future plans are to move on to a second phase of the evaluation next year to investigate the impact of 4MAT on students.

Conclusion

There continues to be a growing interest in using 4MAT as a teaching model to address student learning styles and hemispheric preferences. The biggest problem to date is the difficulty in meeting all the requests for training. As more people complete the trainers' course, the training model can be expanded utilizing the skills of the new trainers.

Recognizing that much of the success of innovations depends on the provision of ongoing support, emphasis is placed on training in-house

coaches. These coaches conduct monthly inservice meetings, motivate staff to write lessons, critique lesson plans, and observe lessons being taught.

It appears that the use of the 4MAT System is a first step toward helping teachers to vary their teaching strategies to meet the learning differences of students. The evaluation design will provide some valuable information as to the strengths and weaknesses of 4MAT as a teaching model.

In his introduction to a collection of papers on research in style and brain behavior, James Keefe (1982) says:

> "Knowledge about learning styles and brain behavior is a fundamental tool at the service of teachers and schools. It is clearly not the latest educational fad."

Based upon both research and experience, there is value in honoring individual learning styles in the classroom. The 4MAT System is designed to honor individual diversity and to provide equal educational opportunities for ALL types of learners.

REFERENCES

_____. (1982) "Forward." Student Learning Styles and Brain Behavior. Reston, VA: National Association of Secondary School Principals.

Guild, P. and Garger, S. (1985). Marching to Different Drummers. Alexandria, VA: Association for Supervision and Curriculum Development.

Kolb, D. (1984). Experiential Learning: Experience as the Source of Learning and Development. New Jersey: Prentice-Hall, Inc.

McCarthy, B. (1980). IVMat System: Teaching to Learning Styles with Right/Left Mode Techniques. Oak Brook, Illinois: EXCELL

Webb, J. (1986). "Educating with Style." Quest, Volume II. Phi Delta Kappa, Northern Virginia Chapter.

MODELS OF TEACHING

by Ricki Green
and
Lynn Pope

"Models of Teaching" is a description of a staff development program designed to provide teachers with a repertoire of strategies to enhance their ability to meet the diverse educational needs and learning styles of their students. Ricki Green is an assistant principal at Haycock Elementary School in Fairfax County and can be reached at 703-532-4340. Lynne Pope is the acting principal at Cub Run Elementary School in Fairfax and can be reached at 703-830-4000.

Program Description and Objectives

Strength in education lies in using a variety of approaches to teaching, matching them to different goals and adapting them to students' styles and characteristics (Joyce and Weil 1980). Models of Teaching begins with the recognition that there is no royal freeway to learning. No one method will solve all complex instructional problems. Teachers need to have a "cafeteria of alternatives" to stimulate and encourage optimum learning. Models of Teaching gives teachers the tools to expand their students' thinking styles. Not only is instruction emphasized, but also the process by which students activate current knowledge, acquire information, and interact with each other. To meet the needs of a diverse student population, teachers need a repertoire of strategies: strategies that are flexible enough to allow for different learning styles and that welcome divergent perspectives in thinking.

Models of Teaching is designed to help teachers improve instruction by increasing the variety of appropriate teaching models used in

the classroom. A range of models exists that addresses approaches to creating environments for learning. These approaches can be analyzed to decide which is most suitable for a specific teaching purpose. A model is both a method of delivery (a lesson progression using certain steps) and a structural framework that serves as a guide for developing specific educational activities and environments. Teachers who have an extensive repertoire of alternatives have the capacity to reach out to children with varying needs and to create a rich, multidimensional learning environment for them.

Models of Teaching has been offered as both a school-based staff development project and a three-credit, graduate-level course. Evaluation and feedback from the school-based project indicated a desire on the part of teachers for additional training in both models and skills that support active student learning. Working in conjunction with George Mason University and the Fairfax County Public School's Office of Staff Development, a graduate course was designed to address the identified needs. Objectives for this course include:

1. identifying teacher/student learning styles and exploring implications for achievement
2. introducing the syntax of four teaching models: Inductive Thinking, Synectics, Concept Attainment, and Creative Problem Solving
3. assisting the teacher in selecting the most appropriate model for a particular teaching objective
4. extending the teacher's understanding of the use of convergent/divergent questioning strategies
5. developing the teacher's ability to use the coaching approach as a means of providing assistance and feedback.

Each model is a structured, logically consistent pattern of teaching. Each consists of guidelines for designing educational activities and environments. In describing a model of teaching, we look at four major concepts:

Syntax - the sequence and flow of activities in a model.

Principles of Reaction - ways in which the teacher "tunes in" to the students and selects appropriate responses.

Social System - the student/teacher roles and relationships, and the norms that are encouraged.

Support System - any requirements beyond the human skills (i.e., a trained leader, texts, films, etc.).

For example, one of the four models, Synectics (Making the Strange Familiar), uses analogies to connect meanings and offer new perspectives. By exploring the analogy "How is a football game like a model of teaching?", the football associations help to clarify and reinforce the concept of Models of Teaching.

Football Game	Model
Players	Students
Coaches role	Teacher input
Plays, game plan	Syntax, strategies
Cheering fans	Supportive environment
Flexible plays	Meeting individual needs
Offensive/defensive teams	Collaborative learning
Time out	Lesson adaptation
Touchdown	Learning objectives

The four models presented in the course emphasize active student involvement. They are a basic core of strategies designed to meet a range of instructional needs for teachers K-12 and special education. These four models, representing four different model "families," are described below:

Inductive Thinking (Hilda Taba) - This model is designed primarily for the development of inductive mental processes and academic reasoning. In the Concept Formation Strategy students learn how to generate a large amount of data and to group and categorize it. In the second strategy, the Interpretation of Data Strategy, students learn how to analyze information prior to making inferences. In the third strategy, the Application of Principles Strategy, students learn how to hypothesize, and support and verify their predictions.

Synectics (William J. J. Gordon) - This model is designed to increase problem solving and creative expression through a process that helps students see problems from another point of view. Analogies and metaphors are used to encourage making connections between known information and new information.

Concept Attainment (Jerome Bruner) - A focus of this model is the development of concepts and their analysis. The teacher presents positive and negative exemplars of a concept. Students analyze the attributes of the examples in order to discover the concept.

Creative Problem Solving (Sidney Parnes) - The purposes of this model are to provide a sequential process for decision-making and to enhance an individual's overall creative behavior. This model uses five distinct steps to solve a defined problem: data finding, problem finding, idea finding, solutions, and a plan of action. Creative Problem Solving is a process model that is highly transferable.

Models are grouped together in families on the basis of the way they approach certain goals. Each family has a similar orientation towards learning. Information processing models focus on acquiring information and developing specific thinking skills. Social models draw on group interactions and help students to identify and solve problems. Personal models help students develop responsibility and feelings of self-worth by integrating the emotional and intellectual components. Finally, behavioral models emphasize use of feedback as a way of viewing the relationship between performance and desired goals.

The following chart describes the characteristics of the four families and lists the models associated with them.

MODELS OF TEACHING FAMILIES

(research-based, having definite phases or steps)

INFORMATION-PROCESSING	SOCIAL	PERSONAL	BEHAVIORAL
(individual; mastery of information)	(individual to group, relationships to society; processes for negotiation)	(individual; processes for connecting information to self)	(individual; systems for sequencing learning tasks; behavior management)
INDUCTIVE THINKING	Group Investigation	Nondirective Teaching	Programmed Instruction
Inquiry Training	Social Inquiry	**SYNECTICS**	Managing Behavior
Scientific Inquiry	Laboratory Method	Awareness Training	Relaxation
CONCEPT ATTAINMENT	**CREATIVE PROBLEM SOLVING**	Conceptual Systems	Anxiety Reduction
Cognitive Growth	Jurisprudential	Classroom Meeting	Assertive Training
Advance Organizer	Role Playing		Simulation
Memory	Social Simulation		Direct Training

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Need and Justification

National reports from Nation at Risk to Nation of Readers discuss the complacent role that students have in our classrooms. Education is being "done to them." The Models of Teaching course is designed to enhance active student participation through student-teacher interaction rather than seatwork. Teachers are trained in strategies designed to expand their repertoire of available alternatives. Research is clear on the point that students must be actively (overtly and covertly) involved in processing information for long-term learning to occur. Students are guided to build the conceptual framework which will support and "hook" future learning. Teachers using models have two purposes: (1) to teach the content of the lesson and (2) to teach alternative processes of learning so that students will have these as tools for later application.

Teachers who have a broad repertoire of teaching models serve their students in another way. Typically, individuals teach the way they learn best. By expanding the range of instructional presentation options, teachers can reach students of varying needs and capacities, and create a rich, multidimensional learning environment for them.

Classroom dialogue and discussion with an emphasis on critical thinking skills is inherent in the models. The sequential nature of phases in a model insures a lesson progression that does not "skip steps" or require students to make cognitive leaps. Students are guided as they work with the "data" to make sense of it. For example, in the Concept Formation phase of the Inductive Thinking Model,

students enumerate, group, and label information about a topic of study. The teacher guides students to analyze ("Which of these go together because they are alike in some way?"), synthesize (subsume data or groups), and evaluate. These three higher order thinking skills are also required in the Interpretation of Data phase (including analyzing among and between groups and making inferences) and the Application of Principles phase (including generalizing and hypothesizing.)

During the Models of Teaching course, participants spend time examining different kinds of divergent/convergent questioning in a simulated discussion. Participants also practice writing and posing open-ended questions. These teacher tools enable participants to structure more effective questions when implementing a model. The general carryover is seen in this elementary classroom teacher's comment:

> I feel the most important point I have gained from this class is an understanding of the need to improve students' thinking abilities. I can see where I have spent too much time at the lower end of Bloom's Taxonomy and I have actually been cheating my students out of a chance to grow in this area. I will be very conscious of this as I plan future lessons for my class . . .

Delivery System and Key Principles of Staff Development

Bruce Joyce and Beverly Showers (1984) have reviewed the elements necessary for teachers to transfer new teaching strategies into classroom use. The research on teacher training has confirmed teacher self-assessment, that teachers are good learners. Staff training offices have to balance a number of factors when planning an inservice

activity -- facility size, adequacy and location; time of day; release time/substitutes; and knowledgable presenters. But another part of the planning is the framework for the training itself and post-training support.

Joyce and Showers outline a four-part process (theory, demonstrating, practice/feedback, and coaching) which drives a sequence that addresses not only immediate learning, but also the use of new strategies in the classroom. The Models of Teaching course is designed to emphasize four elements. Theory is presented in textual readings and in the class presentations as the foundation for discussing assumptions about learners and the rationale for the model. Demonstrations are presented by the instructors, a guest presenter, and video tape sessions. This is a "goldfish bowl" approach to seeing and analyzing a model and its phases. The conditions in the course classroom encourage risk-taking and, yet, are comfortable enough to permit class participants to practice and gain feedback. Course participants, however, are more attentive and more likely to involve themselves enthusiastcally than K-12 students. For this reason, it is the fourth element, coaching, that is so critical to the learning modification and improvement of teaching strategies.

The following synopsis chart was shared with participants of a Joyce/Showers seminar relative to the power of several stages of staff development activities. Figures for each element reflect the combined cumulative benefits of all previous training elements.

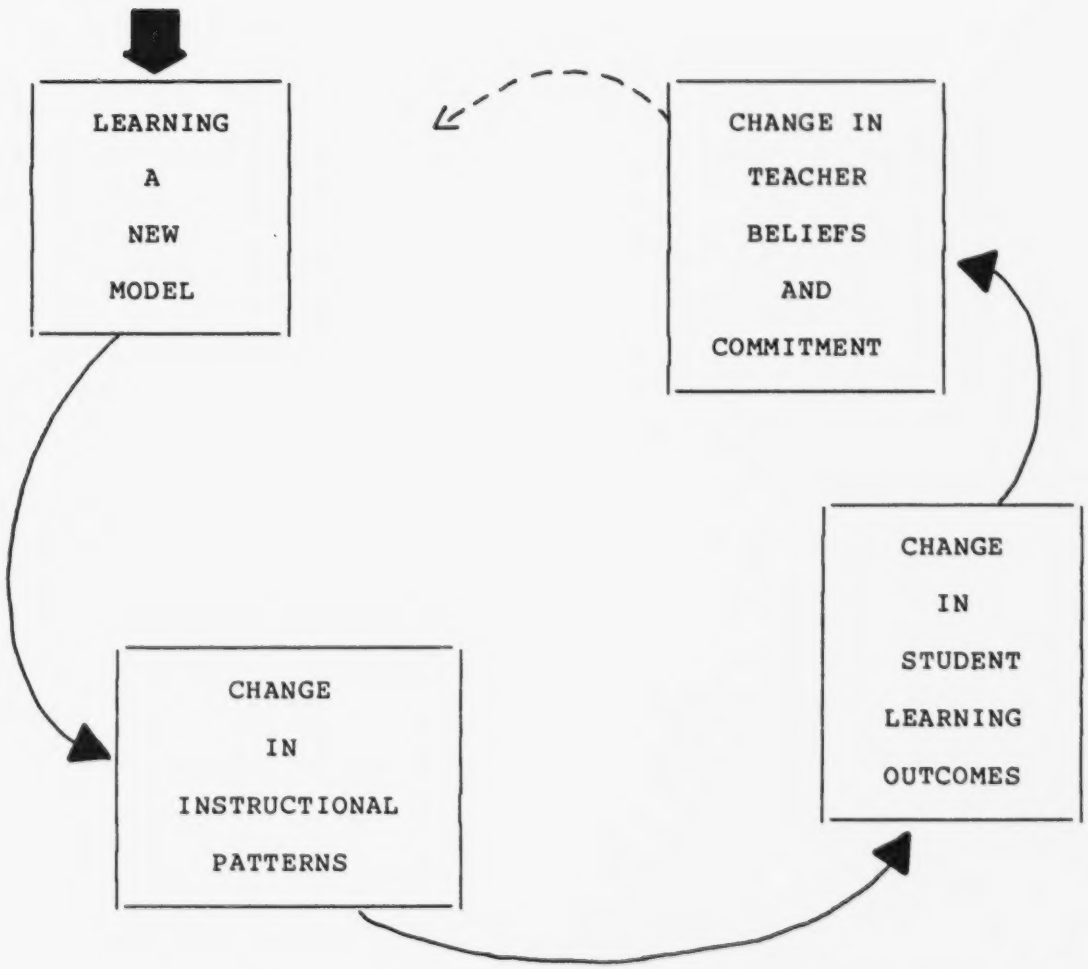
	OUTCOMES		
	Knowledge	Skill	Transfer
Theory	X	5-10%	-
Demonstration	X X	5-10%	-
Practice/Feedback	X X	90+	5-10%
Coaching	X X	90+	75-85%

The need for these four steps is evidenced by the following teacher comment:

> I needed this course - not only the credit. In 21 years of teaching it is easy to develop habits and slip into ruts. This course has made me re-evaluate what I am doing and given me the ideas necessary for change. If the class had included theory with no practice, I would have sat back in my chair and dismissed what was presented. The interaction with other teachers made this a good, enjoyable learning situation.
>
> Intermediate G/T
> Social Studies Teacher

Even for the most highly motivated teacher, change is a slow, difficult process. The likelihood of implementing a program such as Models of Teaching depends largely on how teachers see the models affecting their classroom practices and how they assess student learning outcomes. Individual factors such as philosophical commitment, classroom organization and management, and willingness to take risks affect the change process. In learning new behaviors, the more dramatic the stretch from a comfortable pattern, the more difficult it is to ensure long-term transfer. However, as teachers acquire the necessary skills to try the new strategies and see results with their own students, their commitment to the process increases.

Teachers who feel confident in their own progress are less likely to abandon new and unfamiliar models.


LEARNING A NEW MODEL
CHANGE IN TEACHER BELIEFS AND COMMITMENT
CHANGE IN STUDENT LEARNING OUTCOMES
CHANGE IN INSTRUCTIONAL PATTERNS

Adapted from Ed. Leadership
April 1985 p. 68

During this period of change, teachers need continuous feedback and support. The most powerful tool for helping teachers integrate the new practices into their teaching repertoires is peer coaching. As they learn new models, teachers become a team of artists engaged in the

study of their craft. To ensure maximum opportunities for peer support and peer coaching, the class enrollment is limited to 24. Then, as teachers share common language and understandings necessary to perfect new skills, the coaching process provides the following:

> Companionship - New models are easier to learn when teachers have the opportunity to exchange ideas in pairs. Mutual reflection, checking of perceptions, and thinking through problems helps both trainees. Learning the technical process is more pleasurable when shared, and companionship provides reassurance that problems are normal.
>
> Technical Feedback - As they observe their peers practicing the new models, coaches point out omissions and sources of confusion. It is easier to see these when watching someone else. In analyzing the process and providing specific feedback, coaches strengthen their own skills.
>
> Analysis of Application - Teachers help one another select curriculum materials and concepts to teach, hypothesize student responses and learning outcomes, and design lessons. Together they target the problems that must be solved if transfer to the classroom is to be achieved.
>
> Adaptation to students - Successful teaching requires successful student responses. Students may need to learn to gauge what is expected of them and how to respond to this new method or teaching approach. Teachers may need to redirect questions and focus perspectives so that each student successfully meets the instructional objective. Coaches help one another "read" the students' responses and adapt the models to fit the needs of different groups.

As one course participant noted:

> I just finished writing the synectics lesson and it was the most difficult for me to do so far. I am not sure why. It was either because the style did not fit my purpose, or I am just not used to using analogies with my students. I really had to wrestle with the steps using my text, class notes, and information from peers. I feel I understand the method better, but I'm still not comfortable with it. I must try it in class and then I can reflect on the experience and see what's right or wrong. I can see all these models need practice to get to know them.
>
> High School English Teacher

Innovative Features/Issues

One of the most essential innovative features of the Models of Teaching course is the establishment and monitoring of classroom environment. Within the course, the following elements are highlighted: reward for risk-taking, "co-learners" attitude, planning and revision, and continuous growth. These elements not only guide the relationship of the course instructors to the participants, but also serve as guidelines for teacher-student relationships. Teachers who model the learning process send a powerful message to students; administrators who facilitate change and encourage risk-taking send a powerful message to teachers.

The local building environment has a major impact on the potential for implementation of new teaching models. Ideally, two or more teachers from the same building (although not necessarily the same grade or department) should take the course or be involved together in a models project. This provides easy in-building access for coaching and class observations. There is a greater benefit when teachers form a group to study or improve strategies than when a single (even highly motivated) teacher tries to implement new strategies alone. Staffs in some buildings might choose to form team partnerships in order to learn new models. Implementation meetings would also provide feasible support for participants in the same site.

The Models of Teaching course is compatible with other innovative staff development programs. The learning-styles focus of 4MAT is part of the foundation built into the models course. Teachers need to be

aware of their ow teaching styles and of their students' learning styles. The need for variety in the way information is presented to students is based on the recognition of learning style differences.

In Teacher Expectations and Student Achievement (TESA), there are sessions directed to wait-time, expectations, and higher order thinking skills. Each of these issues is addressed relative to active student participation in the Models course.

Finally, Jon Saphier's Skillful Teacher training recently implemented in Fairfax County Public Schools lists a pyramid of teaching parameters. These are divided into management, instruction, and curriculum. Models of Teaching is specifically stated as one of the patterns of teaching moves, a way of "delivering the goods."

The excitement over Models of Teaching is directly tied to the positive changes and growth that teacher participants see in students.

REFERENCES

Gusky, T. (1985, April). "Staff Development and Teacher Change." Educational Leadership. Vol. 42. No. 1, p 58.

Joyce, B. (1985, May). "Models for Teaching Thinking Skills." Educational Leadership. Vol. 42, No. 8, pp 4-7.

Joyce, B. and Showers, B. (1984). Power and Staff Development through Research and Training. Alexandria, VA: Association for Supervisor and Curriculum Development.

Joyce, B. and Weil, M. (1986). Models of Teaching. Prentice Hall, Inc.: Englewood Cliffs, N.J.

Sapier, J. and Gower, R. (1982). The Skillful Teacher. Carlisle, Mass.: Research for Better Teaching, Inc.

Showers, B. (1985, April). "Teachers Coaching Teachers." Educational Leadership. Vol 42, No. 7, pp 43-48.

THE NORTHERN VIRGINIA WRITING PROJECT

by Dr. Don Gallehr

Dr. Don Gallehr is a faculty member at GMU and Director of the Northern Virginia Writing Project (NVWP) which is a "statewide effort to improve the writing of all Virginia's students, kindergarten through university." Dr. Gallehr describes the program through a teacher's reactions as she learns how to teach writing by writing for herself and her classmates. For more information about NVWP contact Dr. Gallehr at 703-323-2217.

Jill teaches seventh grade social studies and English. She has, over the past twelve years, been moderately satisfied with her teaching. She has loved working with young teenagers despite their boundless energy and what she calls their "in-betweenness."

She worries, however, about how well her former students write high-school papers in English, government, and history. She has never had a course in the teaching of writing, and it has been years since she took freshman composition. She writes only what is required of her and occasionally sends a personal letter to friends and family. When she assigns writing in her social studies classes, she selects the topic and has the students write no more than three pages, making sure each paper has an introduction, body, and conclusion. Her students work alone on their papers and frequently do little more than rephrase the notes she has given them in class.

Her English classes are predominately grammar exercises out of Warriners. At the end of each year she assigns a paper from her list of topics. Her students have one week to complete it, and she does

not look forward to the late-night, all-weekend grading she must do to return the papers before the students leave for the summer.

Recently, Jill has heard teachers talk of writing with excitement and enthusiasm. A close friend of hers has taken a course offered by the Northern Virginia Writing Project through George Mason University, a course her friend says has completely changed her teaching of writing. It is offered through the county, so Jill doesn't have to pay for it. And the three credits in English or Education will meet her recertification requirements. But best of all, it is offered in a nearby school, from 4-7 in the evening. Her only reservation is--"But will it give me things to do Monday morning?"

On the first day of class, she finds herself with 22 teachers from elementary, intermediate, and high school, as well as a counselor and an assistant principal. She thought she would be the only one who taught social studies and is delighted to see two other social studies teachers in the class, along with a biology teacher, a physical education teacher, a history teacher, and two math teachers. When they introduce themselves around the room, the elementary teacher sitting beside her says she teaches "everything."

Soon after the instructor has handed out the assignments and discussed the course requirements, she asks the class to begin their learning logs with a writing--on any topic they wish--for five minutes. They need not worry about grammar or punctuation--this writing is merely a means to warm up for the writing they will be doing later on.

Jill feels a knot grow in her stomach. Visions of high-school English teachers rise before her and she wants to excuse herself to go to the rest room. She looks around the room. The instructor has begun writing. Jill catches the eye of the assistant principal who looks about the room and begins writing. Jill finds herself saying, "If he can do it, by God, so can I." She writes her first sentence and follows it with another. The time creeps by.

Later in the class, the instructor asks them to write on an experience they have had in their own education in learning to write. This time, however, the instructor will provide time for people to volunteer to read aloud to the class. Jill thinks, "No way!" She writes about the time she wrote a paper in senior English and had to read it to the class, about how terrified she was, and about how she was glad it was the last time she has been called on to read her own work. This time Jill has lost herself in the writing and is startled by the instructor's calm voice saying, "Please take another minute to finish." During the next half-hour, others in the class read about experiences both exhilarating and frightening. Jill is impressed that they have the courage to read aloud to a group of strangers. When she writes in her log at the end of class, she conjectures that the example of the instructor's reading first has had something to do with making them feel at ease. For Jill, it is still scary.

During the second class of the course, Jill watches a fifth grade teacher give a presentation on how she teaches science. At first she wonders what a fifth grade teacher can tell her about teaching eighth

graders, but as Jill writes the very assignments this teacher asks of her fifth graders, she sees how difficult it is to do this kind of writing. She wonders if her own assignments appear as difficult to her eighth graders. In the later part of the presentation, the teacher shows them samples of writing done by her students. Jill asks her how she gets them to write on the same general topic, "caterpillars", without any two writings being the same. The teacher says her students draw their opinions and points of view from the observations they have made in their learning logs. Jill wonders if her own learning log will enable her to write unique pieces.

The instructor has urged the class to bring these activities back to their own classes. When Jill assigns learning logs in her social studies class, she is tempted to collect and grade them every day. She has to resist a twelve-year-old habit of grading all work. Despite her instructor's assurance that it is necessary for students to have a safe place to try out their ideas, Jill wonders how eighth graders can be expected to do anything if they aren't going to get a grade for it.

Her instructor has also encouraged them to keep their learning logs on their desks in their classrooms and, when they have a moment, to jot down their observations and reflections on their teaching of writing. Jill finds it impossible to find a spare moment during the day, but enjoys writing in it before the students arrive in the morning. She likes the way it gives more order to her day. She is alarmed, however, when she catches a student reading it as he saunters

past her desk. Later, she tells her students that her log is private, just as their journals are private. Her warning suffices.

Jill is also writing a personal reflection on her great-grandmother, a woman who had traveled to Idaho to become one of the first settlers of Boise. Jill has been intrigued for years by the old album in her mother's attic and has wanted to find her great-grandmother's name in the census figures of the National Archives. She begins by writing everything she can remember her mother telling her about Great-grandma Betsy Mullins.

Jill selected this topic for another reason--she considered it safe to read to her group on alternate class nights. But when her turn comes, she finds herself having trouble holding the pages still. It isn't until her group reassures her that it is a great topic that she relaxes.

In subsequent weeks, Jill discovers that professional writers have many of the same struggles with writing that she does--the blank page, putting the writing off until the last minute, hearing a judgemental voice whispering in her ear that her work is "no good," and worrying what others will say about it. She reads about Ray Bradbury who works on several pieces at once, and she finds that it helps her to shift from piece to piece whenever she hits a snag. In addition, Jill listens as the presenters refer to their own struggles with writing, and decides that struggling must be part of the territory. She has set aside 15 minutes early in the morning to write about Betsy, and fifteen

minutes after school to write about the articles she is reading on the teaching of writing. By half-way through the course, she finds herself almost looking forward to these moments to do something for herself. Moreover, when the instructor suggests that they periodically reread their logs, she is surprised she has written so much.

The fifth presenter is a high-school math teacher who, after her presentation, answers Jill's questions about how she got to go around to these English/Education (695) writing courses. The math teacher tells her about the Northern Virginia Writing Project Summer Institute held each July at George Mason University. She says she had to apply for it with a letter of application, a vita, and two letters of recommendation. She was interviewed along with teachers from other districts, other disciplines, and other grade levels. She had given this presentation in an earlier version to the Fellows of the Summer Institute and had revised it several times since. Also, she had written for her response group very much as Jill is doing in this class. Fellows successfully completing the Summer Institute were called Teacher/Consultants and were invited to give presentations to 695 classes, at conferences and conventions, and even, at times, in their own schools. When Jill asked her if she had taken a 695 course before applying to the Institute, the math teacher said she had not, and that as far as she knew, about half the Fellows in her Summer Institute had not either.

By the 13th week of the course, Jill had finished her personal writing on "Betsy of Boise", and was pulling together an article on

using small groups to discuss social studies. She had begun using small groups in her classes two months ago and found that some students needed more instruction on small group interaction than she had given them. After reading both books and articles on response groups, she decided to have her students write about their expectations of their groups before the groups met, and to write afterwards about what they learned. She found this simple technique to work for all but a few of her eighth graders. She ended her article with a list of questions she intended to pursue on her own after the class was over. Luckily for Jill, the last presenter of the course was an eighth grade English teacher who devoted the last hour to discussion. Jill asked questions and jotted down her latest ideas at the bottom of her article. The presenter cautioned her to expect to have individuals or whole classes for whom writing and learning in small groups are very difficult. She quoted one author on small groups as saying, "On such days, you have to lower the boom."

Jill listened as the history teacher in the class asked the presenter about the origin of this course. The presenter said the original idea came from James Gray who founded the Bay Area Writing Project in 1974 at the University of California at Berkeley. Since then the project had expanded to 161 such sites in 46 states and 6 foreign countries. The Northern Virginia site had started in 1978 and was part of the seven-site Virginia Writing Project. All 166 sites were known collectively as the National Writing Project and all followed a set of basic assumptions about inservice education, among them being that the best teacher of teachers is another teacher, and that

teachers who teach writing or use writing to learn in their classes must themselves write. As a collaborative effort to solve a problem common to all levels of education, the Northern Virginia site was funded by the schools, both public and private, the University, and the state legislature through the Virginia Foundation for Humanities and Public Policy.

As Jill wrote her final position paper on her use of writing to learn social studies, she found herself confident in her ability to write. "I'm no Shakespeare," she wrote, "but I'm no longer afraid to write. And with time and practice, I'll continue to improve. My group intends to meet at least once after this course ends, and who knows, I may turn my professional topic into an article for publication."